3-month summary

- The likelihood of a cold period is near normal
- This represents a higher chance of cold conditions than in many recent years, however
- Impacts from cold weather such as snow and ice remain possible during February and March
- The likelihood of a wet 3-month period is close to normal
- Chances of a windy period are also similar to normal

3-month likelihood of impact

Temperature

20% chance the season will be COLD	60% chance the season will be NEAR AVERAGE	20% chance the season will be MILD
1.0× the normal chance	1.0× the normal chance	1.0× the normal chance

Precipitation

15% chance the season will be DRY	65% chance the season will be NEAR AVERAGE	20% chance the season will be WET
0.8× the normal chance	1.1× the normal chance	1.0× the normal chance

Wind speed

20% chance the season will be CALM	60% chance the season will be NEAR AVERAGE	20% chance the season will be WINDY
1.0× the normal chance	1.0× the normal chance	1.0× the normal chance

1-month summary

- The start of February is likely to be mild
- As a result, the likelihood of the average temperature for the whole of February being cold is reduced
- Nevertheless, chances of cold conditions increase later in the month
- Impacts from cold weather such as snow and ice are therefore still possible
- Increase in the likelihood of a dry month
- Chance of a windy February is lower than normal

1-month likelihood of impact

Temperature

10% chance the month will be COLD	70% chance the month will be NEAR AVERAGE	20% chance the month will be MILD
0.5× the normal chance	1.2× the normal chance	1.0× the normal chance

Precipitation

30% chance the month will be DRY	60% chance the month will be NEAR AVERAGE	10% chance the month will be WET
1.5× the normal chance	1.0× the normal chance	0.5× the normal chance

Wind speed

25% chance the month will be CALM	65% chance the month will be NEAR AVERAGE	10% chance the month will be WINDY
1.3× the normal chance	1.1× the normal chance	0.5× the normal chance

Understanding the Outlook

The Outlook uses 3 categories for possible UK temperature, precipitation and wind speed in the next 1 and 3 months:

COLD, NEAR AVERAGE and MILD for temperature
WET, NEAR AVERAGE and DRY for precipitation
CALM, NEAR AVERAGE and WINDY for wind speed

These are linked to observed UK conditions in past years. The NEAR AVERAGE category represents typical conditions for the period and has a normal likelihood of 60%. The higher and lower categories represent more unusual conditions that are more likely to produce impacts. Each has a normal likelihood of 20%.

The Outlook shows how the chances of occurrence of the categories differ from normal, based on knowledge of expected global meteorological patterns. It does not identify which category will actually occur.

Same 3-month period over the last 10 years

2014 2015 2016 2017 2018 2019 2020 2021 2022 2023
MILD NEAR AVERAGE NEAR AVERAGE MILD COLD MILD NEAR AVERAGE NEAR AVERAGE MILD NEAR AVERAGE
WET NEAR AVERAGE NEAR AVERAGE NEAR AVERAGE NEAR AVERAGE NEAR AVERAGE WET NEAR AVERAGE NEAR AVERAGE NEAR AVERAGE
NEAR AVERAGE NEAR AVERAGE NEAR AVERAGE NEAR AVERAGE NEAR AVERAGE NEAR AVERAGE WINDY NEAR AVERAGE NEAR AVERAGE CALM

Same 1-month period over the last 10 years

2014 2015 2016 2017 2018 2019 2020 2021 2022 2023
NEAR AVERAGE NEAR AVERAGE NEAR AVERAGE NEAR AVERAGE COLD MILD NEAR AVERAGE NEAR AVERAGE MILD MILD
WET NEAR AVERAGE NEAR AVERAGE NEAR AVERAGE NEAR AVERAGE NEAR AVERAGE WET NEAR AVERAGE WET DRY
WINDY NEAR AVERAGE NEAR AVERAGE NEAR AVERAGE NEAR AVERAGE NEAR AVERAGE WINDY NEAR AVERAGE WINDY NEAR AVERAGE

Outlook in context

Drivers of UK weather for February to April
Global weather patterns can affect UK weather during the coming season and their influence acts to shift the chances of the categories in the Outlook.
Drivers relevant to the current Outlook include:
• The warming of UK climate consistent with wider global warming trends.
• An ongoing El Niño event, which increases the likelihood of cold and dry.
• An active MJO which favours westerly winds during early February and then a reduction in westerly winds during mid and late February.
• An easterly phase of the Quasi-Biennial Oscillation reduces the strength of westerly winds.
• The Stratospheric Polar Vortex has tended to be weaker than normal so far this winter but its strength has now returned to around average and its influence is likely to be limited during this period.

Long-range weather predictions
The Met Office and other prediction centres around the world routinely produce long-range forecasts of conditions in the months ahead. There are indications that through the period the UK is more likely to be influenced by patterns bringing higher than average pressure. During February and into March, there are signs that high pressure will probably become centred to the west or northwest of the UK that would increase the chance of northerly or northwesterly winds and also give a higher than normal chance of easterly winds.

Impacts
Whilst February is expected to start off mild, the chance of cold weather moderately increases during February and into March. This leads to a higher likelihood of related impacts such as those from snow and ice. As usual, this increased chance of cold does not exclude the possibility of more normal or mild conditions. The likelihood of a wet and windy period overall is similar to normal, although a little less likely in February. Despite this, given the wet weather so far this winter, there remains an increased chance of impacts from heavy rain.

Outlook compared to normal likelihood

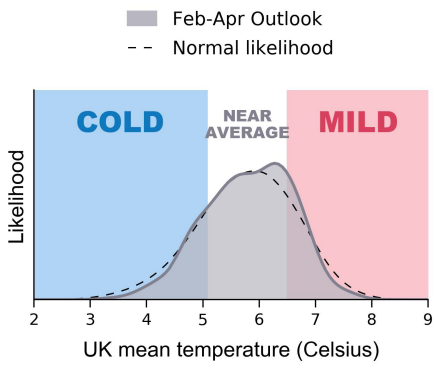
The curves below show the likelihood of the 1- and 3-month average temperature, precipitation and wind speed taking specific values. In each case:

- The dashed curve shows the normal likelihood based on how often each value has been recorded in past years
- The solid curve shows the current likelihood based on the Outlook for this year

The differences in these curves show how the probabilities for the coming periods differ compared to past years. Where the solid curve (corresponding to this year's Outlook) lies above the dashed curve (normal likelihood), the temperature, precipitation or wind speed at that point has a greater-than-normal likelihood of occurring. Likewise, wherever it is below the dashed curve, the likelihood of those values is less than normal.

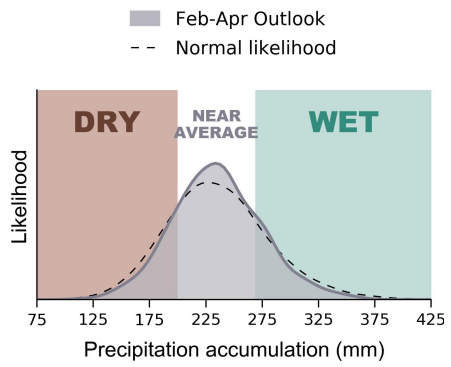
A shift of the solid curve to the left of the dashed curve indicates an increase in the chances of below-average temperature, rainfall or winds. A shift to the right, meanwhile, indicates increased chances of above-average values.

3-month temperature Outlook compared to normal



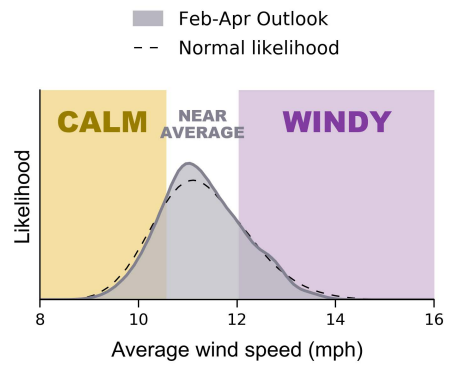
Balanced likelihood of cold and mild

3-month precipitation Outlook compared to normal



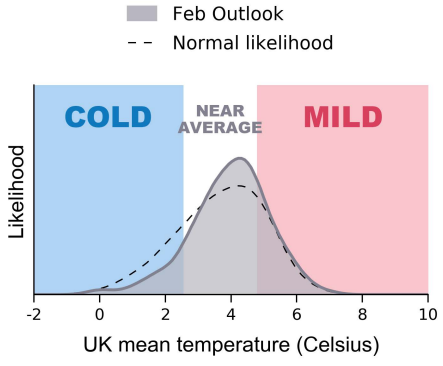
Balanced likelihood of dry and wet

3-month wind speed Outlook compared to normal



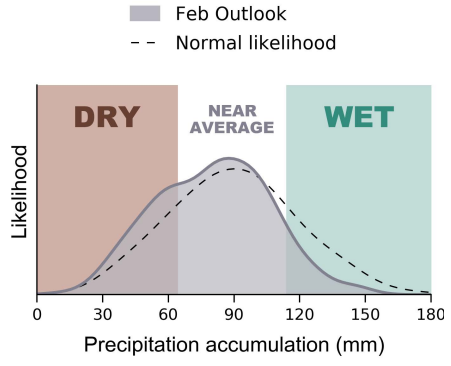
Balanced likelihood of calm and windy

1-month temperature Outlook compared to normal



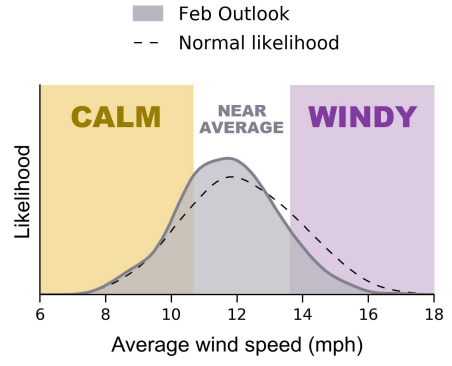
Slight lean away from cold

1-month precipitation Outlook compared to normal



Leans towards dry

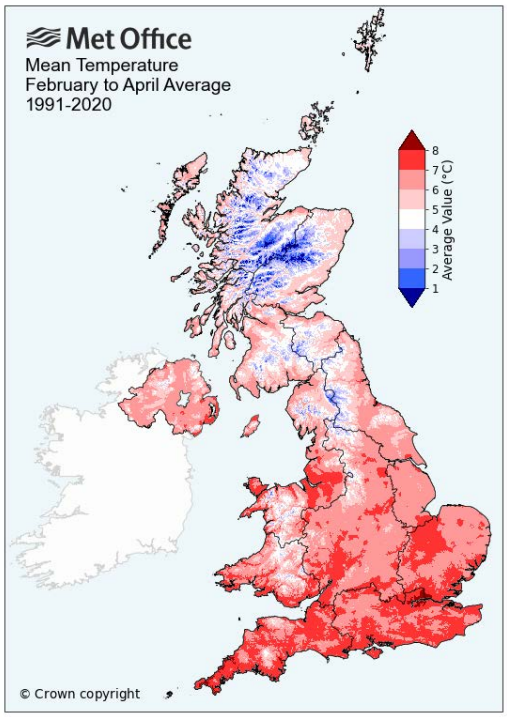
1-month wind speed Outlook compared to normal



Leans towards calm

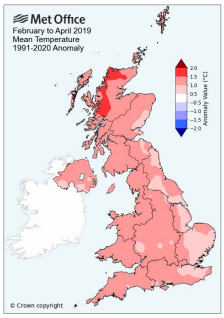
Long-term average temperatures (3-month)

This page shows the long-term average temperatures across the UK applicable to the 3-month Outlook period.

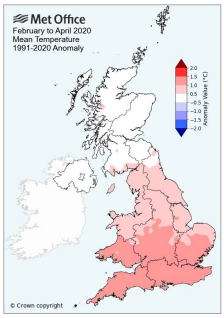


Average temperatures for February - April based on observations of past years.

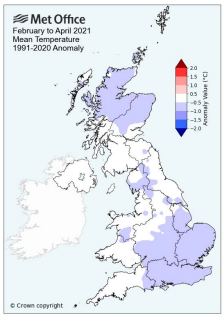
Last 5 years temperatures, difference from average (3-month)



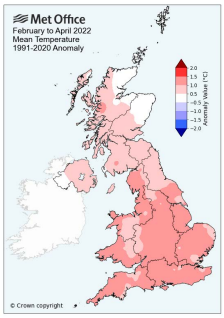
Feb - Apr 2019



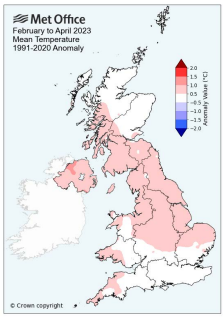
Feb - Apr 2020



Feb - Apr 2021



Feb - Apr 2022



Feb - Apr 2023

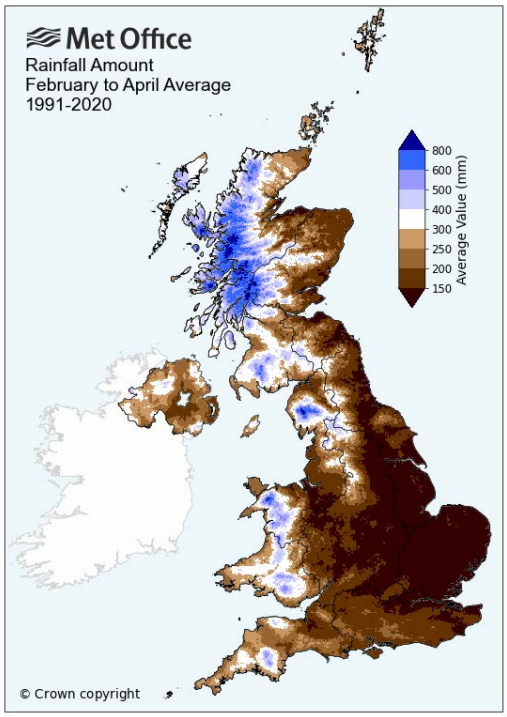
Anomaly (°C)

< -2.0	-2.0 to -1.5	-1.5 to -1.0	-1.0 to-0.5	-0.5 to 0.5	0.5 to 1.0	1.0 to 1.5	1.5 to 2.0	> 2.0

These maps show how February - April temperatures in the last five years differed from the long-term average temperatures shown above in the upper panel. Pink and red colours indicate milder-than-average conditions while blue shades indicate colder-than-average conditions. Detailed information on the climate of the UK is available at www.metoffice.gov.uk/climate.

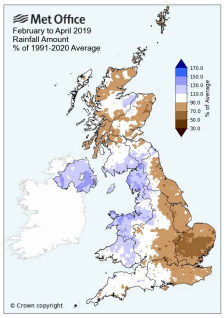
Long-term average precipitation (3-month)

This page shows the long-term average precipitation across the UK applicable to the 3-month Outlook period.

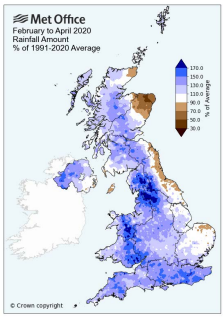


Average precipitation for February - April based on observations of past years.

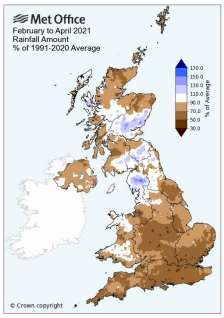
Last 5 years precipitation, difference from average (3-month)



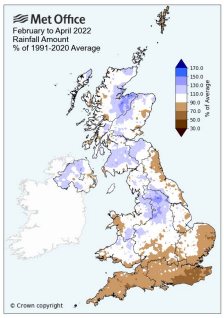
Feb - Apr 2019



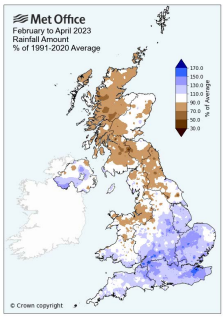
Feb - Apr 2020



Feb - Apr 2021



Feb - Apr 2022



Feb - Apr 2023

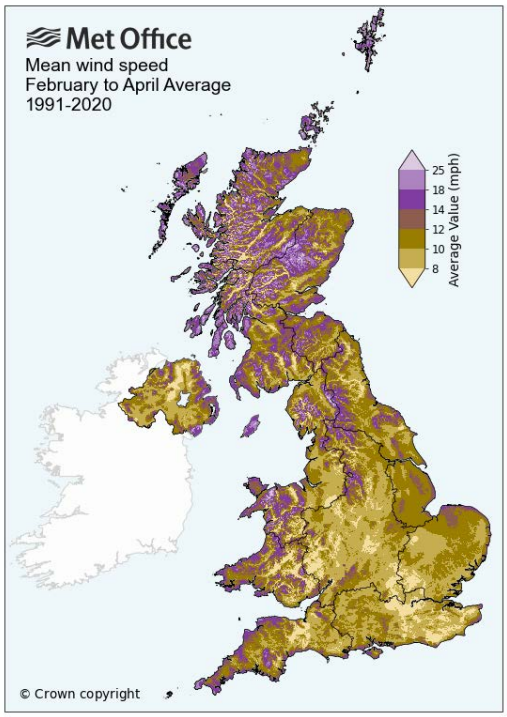
% of average

< 30	30 to 50	50 to 70	70 to 90	90 to 110	110 to 130	130 to 150	150 to 170	> 170

These maps show how February - April precipitation in the last five years differed from the long-term average precipitation shown above in the upper panel. Brown colours indicate drier-than-average conditions while blue shades indicate wetter-than-average conditions. Detailed information on the climate of the UK is available at www.metoffice.gov.uk/climate.

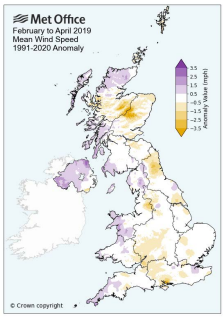
Long-term average wind speed (3-month)

This page shows the long-term average wind speed across the UK applicable to the 3-month Outlook period.

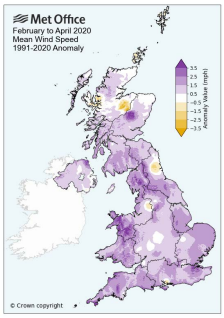


Average wind speed for February - April based on observations of past years.

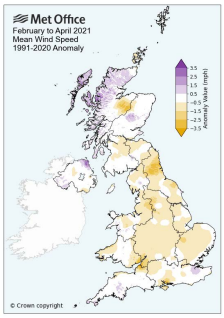
Last 5 years wind speed, difference from average (3-month)



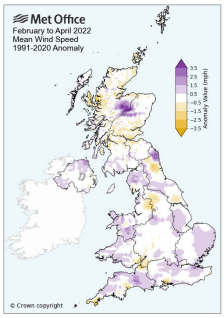
Feb - Apr 2019



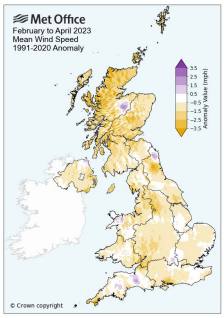
Feb - Apr 2020



Feb - Apr 2021



Feb - Apr 2022



Feb - Apr 2023

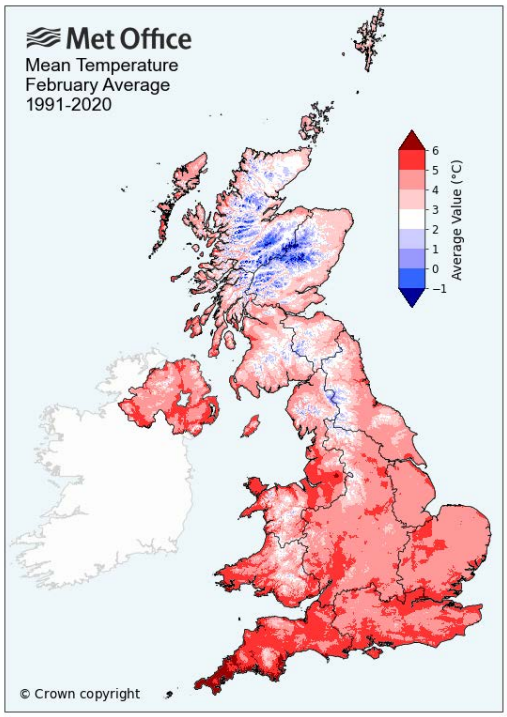
Anomaly (mph)

< -3.5	-3.5 to -2.5	-2.5 to -1.5	-1.5 to -0.5	-0.5 to 0.5	0.5 to 1.5	1.5 to 2.5	2.5 to 3.5	> 3.5

These maps show how February - April wind speed in the last five years differed from the long-term average wind speeds shown above in the upper panel. Yellow colours indicate calmer-than-average conditions while purple shades indicate windier-than-average conditions. Detailed information on the climate of the UK is available at www.metoffice.gov.uk/climate.

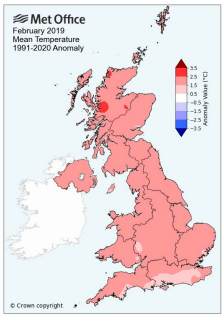
Long-term average temperatures (1-month)

This page shows the long-term average temperatures across the UK applicable to the 1-month Outlook period.

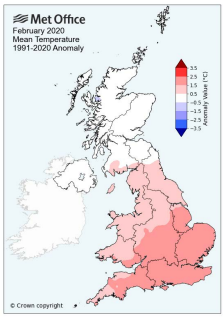


Average temperatures for February based on observations of past years.

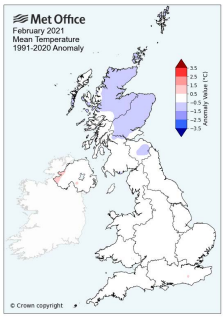
Last 5 years temperatures, difference from average (1-month)



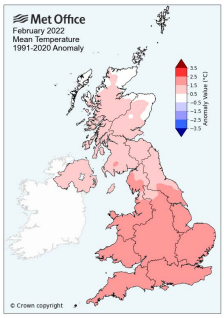
Feb 2019



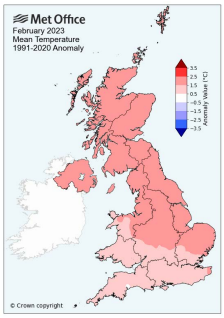
Feb 2020



Feb 2021



Feb 2022



Feb 2023

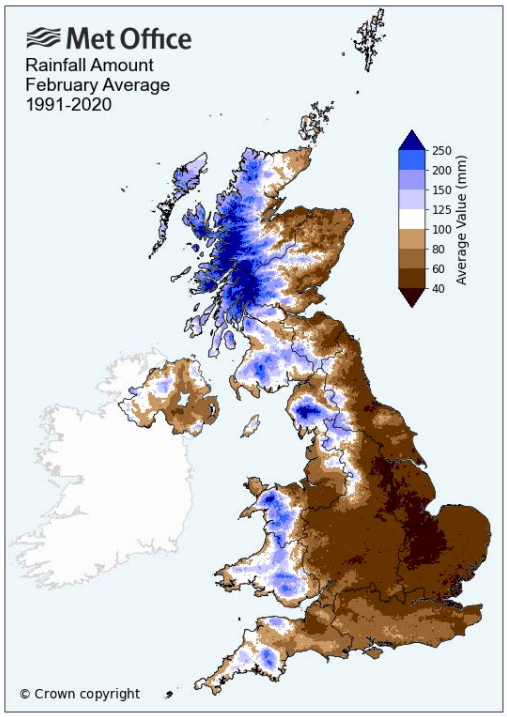
Anomaly (°C)

< -3.5	-3.5 to -2.5	-2.5 to -1.5	-1.5 to -0.5	-0.5 to 0.5	0.5 to 1.5	1.5 to 2.5	2.5 to 3.5	> 3.5

These maps show how February temperatures in the last five years differed from the long-term average temperatures shown above in the upper panel. Pink and red colours indicate milder-than-average conditions while blue shades indicate colder-than-average conditions. Detailed information on the climate of the UK is available at www.metoffice.gov.uk/climate.

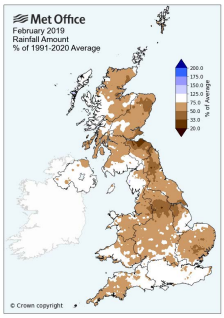
Long-term average precipitation (1-month)

This page shows the long-term average precipitation across the UK applicable to the 1-month Outlook period.

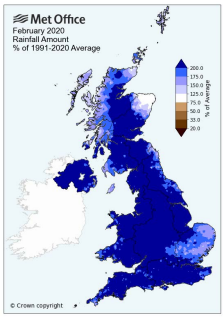


Average precipitation for February based on observations of past years.

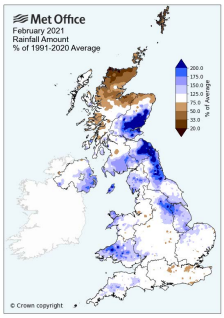
Last 5 years precipitation, difference from average (1-month)



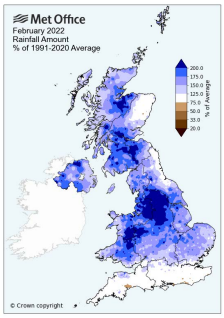
Feb 2019



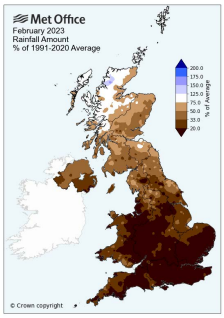
Feb 2020



Feb 2021



Feb 2022



Feb 2023

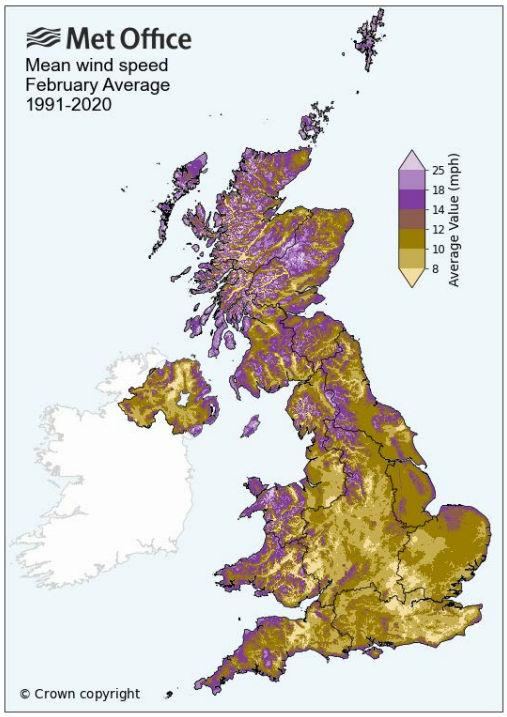
% of average

< 20	20 to 33	33 to 50	50 to 75	75 to 125	125 to 150	150 to 175	175 to 200	> 200

These maps show how February precipitation in the last five years differed from the long-term average precipitation shown above in the upper panel. Brown colours indicate drier-than-average conditions while blue shades indicate wetter-than-average conditions. Detailed information on the climate of the UK is available at www.metoffice.gov.uk/climate.

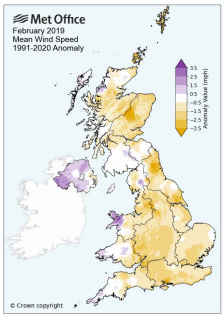
Long-term average wind speed (1-month)

This page shows the long-term average wind speed across the UK applicable to the 1-month Outlook period.

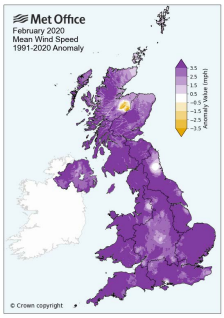


Average wind speed for February based on observations of past years.

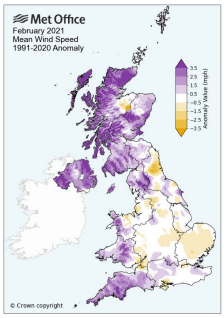
Last 5 years wind speed, difference from average (1-month)



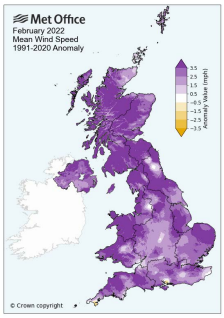
Feb 2019



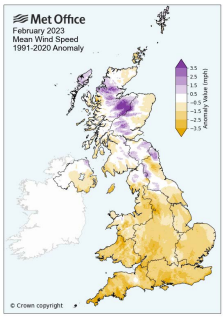
Feb 2020



Feb 2021



Feb 2022



Feb 2023

Anomaly (mph)

< -3.5	-3.5 to -2.5	-2.5 to -1.5	-1.5 to -0.5	-0.5 to 0.5	0.5 to 1.5	1.5 to 2.5	2.5 to 3.5	> 3.5

These maps show how February wind speed in the last five years differed from the long-term average wind speeds shown above in the upper panel. Yellow colours indicate calmer-than-average conditions while purple shades indicate windier-than-average conditions. Detailed information on the climate of the UK is available at www.metoffice.gov.uk/climate.

Q&As

Q. What is the point of the Outlook, who is it meant for?
A. This Outlook is produced for planners in government and business who make risk-based decisions. These users are aware of the complexities of this type of outlook and will include those factors in their decision-making process.

Q. How did you decide on the Outlook? What are the main factors affecting it?
A. It is based on information from observations, several numerical prediction systems and expert judgement. See the 'Outlook in Context' section of the Outlook for more details.

Q. Is the Outlook for the whole country?
A. The Outlook is for the average of conditions over the UK as a whole. Regional deviations from the UK-average can occur. For example, average UK precipitation can result from below-average rainfall for the northwest and above-average for the southeast.

Q. How confident are you in this Outlook?
A. The percentages in the 'Likelihood of Impact' sections of the Outlook give the level of confidence.

Q. Does this Outlook mean we could see more flooding?
A. Whilst the likelihood of a wet or dry 3-month period is evenly balanced, given recent wet weather, there remains an increased chance of impacts from rainfall at times. However, it is not possible to specify timings of specific weather or details of potential impacts, such as flooding. Those concerned about flood risks should monitor our severe weather warnings and forecast information on our forecast pages, as well as check their flood risk and any warnings with the Environment Agency, SEPA, Natural Resources Wales or NI Direct.

Q. Does the Outlook give an indication on whether we will see more named storms?
A. Although the storm season has been very active so far, this Outlook is fairly neutral, with the risk of a wet or windy period being near normal. While global drivers indicate a reduced chance of storm-bearing westerly winds, these are still possible throughout the during this period, although we will only be able to identify when any may occur closer to the event.

Q. Does this Outlook mean we will not see any more cold weather?
A. After some recent disruption, the Stratospheric Polar Vortex has returned to normal and does not appear likely to promote cold weather in February. This is consistent with the Outlook, which indicates a fairly balanced likelihood of cold or mild conditions for the coming months and impacts from cold weather, such as snow and ice, remain possible, particularly early in the period. The Outlook cannot tell us if, or when, any cold spells might occur you can find out more by keeping up to date with the latest forecast on ourwebsite orby following us on social media.

About the Outlook

The Outlook presented here is for United Kingdom as a whole and is based on information from observations, several numerical prediction systems and expert judgement. It is updated monthly to reflect the latest information on global weather patterns and their effect on the UK. The Outlook is designed to be used in conjunction with shorter-range forecasts – detailed weather forecast information is available on the Met Office website.

In this product, temperature refers to the average of daytime maxima and night-time minima. Wind speed refers to the average wind speed at a height of 10 metres. All numerical values relate to averages (temperature, wind speed) or totals (precipitation – rain, sleet, snow and hail) over 1 or 3 months, which are further averaged over the UK land area as a whole. Normal likelihood and long-term averages are established using the period 1991-2020.

Find out more

- UK 3-month Outlook user guidance page:
  https://www.metoffice.gov.uk/services/government/contingency-planners/user-guidance/user-guidance
- Explainers on climate drivers (such as the El Niño Southern Oscillation and North Atlantic Oscillation) that influence seasonal forecasts and the impacts they can have on UK weather:
  https://www.metoffice.gov.uk/services/government/contingency-planners/seasonal-forecasts-and-climate-drivers-resources
- Contingency planners page:
  https://www.metoffice.gov.uk/services/government/contingency-planners/index

Contact us

Website:
www.metoffice.gov.uk

Email:
enquiries@metoffice.gov.uk

Provide your feedback

We would like to hear your feedback on the UK 3-month Outlook to understand how it is being used. Please fill in the short form using this link or QR code to share your thoughts.